

2481.1743

CPE/DSF/MTL

PLEASE STAMP TO ACKNOWLEDGE RECEIPT OF THE FOLLOWING:

In Re Application of: E. UHLMANN et al.

Application No.: 09/835,371

Group Art Unit: Not Yet Assigned

Filed: April 17, 2001

Examiner: Not Yet Assigned

For: POLYAMIDE NUCLEIC ACID DERIVATIVES AND  
AGENTS AND PROCESSES FOR PREPARING THEM

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1. Information Disclosure Statement and PTO-1449

2. 38 cited documents

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Atty Docket No.: 02481.1743

Date: October 26, 2001

Due Date: N/A

MTL/mrd



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of )  
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E. UHLMANN et al. )  
 )  
Application No.: 09/835,371 ) Group Art Unit: Not Yet Assigned  
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Filed: April 17, 2001 ) Examiner: Not Yet Assigned  
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For: POLYAMIDE NUCLEIC ACID )  
DERIVATIVES AND AGENTS )  
AND PROCESSES FOR )  
PREPARING THEM )

Assistant Commissioner for Patents  
Washington, D.C. 20231

**INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)**

Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicants bring to the attention of the Examiner the documents listed on the attached Form PTO-1449. This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits for the above-referenced application.

Copies of the listed documents are attached.

Applicants respectfully request that the Examiner consider the documents listed on the attached Form PTO-1449 and indicate that they were considered by making appropriate notations on the attached Form PTO-1449.

Additionally, Applicants would like to bring to the Examiner's attention the following co-pending U.S. patent application, which relates to similar subject matter:

U.S. Patent Application No. 09/835,370 filed April 17, 2001,  
entitled: POLYAMIDE NUCLEIC ACID DERIVATIVES AND  
AGENTS AND PROCESSES FOR PREPARING THEM.

A copy of this co-pending application is attached.

This submission does not represent that a search has been made or that no better art exists, and does not constitute an admission that each, any, or all of the listed documents are material or constitute prior art. If the Examiner applies any of the documents as prior art against any claim in the application and Applicants determine that the cited documents do not constitute prior art under United States law, Applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of such documents.

Applicants further reserve the right to take appropriate action to establish the patentability of the claimed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

By: 

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Date: October 26, 2001

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202-408-4000

# INFORMATION DISCLOSURE CITATION

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U.S. PATENT DOCUMENTS							
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FOREIGN PATENT DOCUMENTS							
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
		Praseuth et al., "Triple Helix Formation and the Antigene Strategy for Sequence-Specific Control of Gene Expression", <i>Biochem. Biophys. Acta</i> 1489(1):181-206, December 10, 1999.					
		Mischiati et al., "Interaction of the Human NF- $\kappa$ B p52 Transcription Factor with DNA-PNA Hybrids Mimicking the NF- $\kappa$ B Binding Sites of the Human Immunodeficiency Virus Type 1 Promoter", <i>J. Biol. Chem.</i> 274(46):33114-33122, November 12, 1999.					
		Cole-Strauss et al., "Correction of the Mutation Responsible for Sickle Cell Anemia by an RNA-DNA Oligonucleotide", <i>Science</i> 273:1386-1389, September 6, 1996.					
		Ørum et al., "Labeling of PNA", <i>Peptide Nucleic Acids: Protocols and Applications</i> , pps. 81-86, 1999.					
		Lohse et al., "Fluorescein-Conjugated Lysine Monomers for Solid Phase Synthesis of Fluorescent Peptides and PNA Oligomers", <i>Bioconjugate Chem.</i> 8(4):503-509, July/August 1997.					
		Wittung et al., "Phospholipid Membrane Permeability of Peptide Nucleic Acid", <i>FEBS Lett.</i> 365(1):27-29, May 22, 1995.					
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		Egholm et al., "Peptide Nucleic Acids (PNA): Oligonucleotide Analogues with an Achiral Peptide Backbone", <i>J. Am. Chem. Soc.</i> 114(5):1895-1897, February 26, 1992.					
Examiner				Date Considered			
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		WO 92/20702	11/1992	PCT			
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
		Nielsen et al., "Sequence-Selective Recognition of DNA by Strand Displacement with a Thymine-Substituted Polyamide", <i>Science</i> 254:1497-1500, December 6, 1991.					
		Egholm et al., "PNA Hybridizes to Complementary Oligonucleotides Obeying the Watson-Crick Hydrogen-Bonding Rules", <i>Nature</i> 365(6446):566-568, October 7, 1993.					
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		Uhlmann et al., "PNA: Synthetic Polyamide Nucleic Acids with Unusual Binding Properties", <i>Angew. Chem. Int. Ed.</i> 37(20):2796-2823, November 2, 1998.					
		Greiner et al., "Influence of the Type of Junction in DNA-3'-Peptide Nucleic Acid (PNA) Chimeras on Their Binding Affinity to DNA and RNA", <i>Helvetica Chimica Acta</i> 82(12):2151-2159, 1999.					
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		Uhlmann et al., "Antisense Oligonucleotides: A New Therapeutic Principle", <i>Chemical Reviews</i> 90(4):543-584, June 1990.					
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		Nielsen et al., Appendix, "Peptide Nucleic Acids - Protocols and Applications", <i>Horizon Scientific Press</i> , pps. 253-255, 1999.					
		Falkiewicz, B., "Peptide Nucleic Acids and Their Structural Modifications", <i>Acta Biochim. Polonica</i> 46(3):509-529, 1999.					
		Sosnowski et al., "Rapid Determination of Single Base Mismatch Mutations in DNA Hybrids by Direct Electric Field Control", <i>Proc. Natl. Acad. Sci. USA</i> 94(4):1119-1123, February 1997.					
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		Tarrason et al., "Intracellular Distribution of Digoxigenin-Labeled Phosphorothioate Oligonucleotides", <i>Methods in Enzymology</i> 313:257-268, 1999.					
		Matthes et al., "Telomerase Protein Rather than its RNA is the Target of Phosphorothioate-Modified Oligonucleotides", <i>Nucleic Acids Research</i> 27(4):1152-1158, February 15, 1999.					
		Hayashi et al., "In Vivo Transfer of Gene and Oligodeoxynucleotides into Skin of Fetal Rats by Incubation in Amniotic Fluid", <i>Gene Therapy</i> 3(10):878-885, October 1996.					
		Just et al., "Flow Cytometric Detection of EBV (EBER snRNA) Using Peptide Nucleic Acid Probes", <i>Journal of Virological Methods</i> 73(2):163-174, August 1998.					
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		Strother et al., "Synthesis and Characterization of DNA-Modified Silicon (111) Surfaces", <i>J. Am. Chem.</i> 122(6):1205-1209, February 16, 2000.					
		Pirrung, M., "Spatially Addressable Combinatorial Libraries", <i>Chem. Rev.</i> 97(2):473-488, March/April 1997.					
		Wang et al., "Peptide Nucleic Acid Probes for Sequence-Specific DNA Biosensors", <i>J. Am. Chem. Soc.</i> 118(33):7667-7670, August 21, 1996.					
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		Beaucage et al., "The Functionalization of Oligonucleotides Via Phosphoramidite Derivatives", <i>Tetrahedron</i> 49(10):1925-1963, March 5, 1993.					
		Ravin, L., "Preformulation", <i>Remington's Pharmaceutical Sciences</i> , Mack Publishing Company, Easton, PA, pps. 1409-1423, 1985.					
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		Li et al., "Molecular Beacons: A Novel Approach to Detect Protein-DNA Interactions", <i>Angew. Chem. Int. Ed.</i> <b>39</b> (6):1049-1052, March 17, 2000.					
		Sokol et al., "Real Time Detection of DNA-RNA Hybridization in Living Cells", <i>Proc. Natl. Acad. Sci. USA</i> <b>95</b> (20):11538-11543, September 29, 1998.					
		Niemeyer et al., "DNA Microarrays", <i>Angew. Chem. Int. Ed.</i> <b>38</b> (19):2865-2869, 1999.					
		Weiner et al., "Liposomes as a Drug Delivery System", <i>Drug Develop. and Ind. Pharm.</i> <b>15</b> (10):1523-1554, 1989.					
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